

### ABSTRACT

A piercing station for piercing sample container caps or thick stoppers is provided. The cap piercing station utilizes a piercing blade having a generally Z-shaped cross-section, a carriage assembly for moving the blade to pierce a cap on a container, an  
5 alignment block assembly for preventing the container from being lifted up by friction with the blade when the blade is being withdrawn from a pierced cap, and a latch assembly for latching the alignment block assembly when the blade is being withdrawn.